

## THE INVENTION CLAIMED IS:

1. A capacitive uterine contraction sensor comprising:  
an insulating substrate;  
a first electrode disposed on one side of the substrate; and  
a second electrode positioned on the first side of the substrate in a spaced relation to the first electrode, at least part of the second electrode configured to move toward or away from the first electrode.
2. The sensor of claim 1, further comprising a conductive standoff sandwiched between the substrate and the second electrode for maintaining the second electrode in spaced relation to the first electrode, the conductive standoff electrically coupled to the second electrode and electrically isolated from the first electrode.
3. The sensor of claim 1, wherein the second electrode comprises a spring mechanism, wherein the spring mechanism is electrically isolated from the first electrode, the second electrode maintained in spaced relation to the first electrode.
4. The sensor of claim 3, wherein:  
the second electrode includes a plurality of channels in a body;  
a plurality of tabs extend from the body; and  
each tab is secured to the substrate via a standoff.
5. The sensor of claim 1, further comprising a load transfer button positioned on a side of the second electrode facing away from the first electrode.
6. The sensor of claim 1, further comprising electronic circuitry for determining a capacitance of a capacitor formed by the spaced relation of the first and second electrodes.
7. The sensor of claim 6, further comprising means for communicating with an external monitoring unit.

8. The sensor of claim 1, further comprising means for securing the capacitive uterine contraction sensor against an abdomen.

9. The sensor of claim 1, further comprising a dielectric disposed between the first electrode and the second electrode.

10. The sensor of claim 1, further comprising a conductive sheet on each side of the substrate, wherein:

the conductive sheets are electrically connected;

the first electrode is electrically isolated from the conductive sheet on the one side of the substrate; and

the second electrode is electrically connected to the conductive sheet on the one side of the substrate.